Finding Duplicate Records in SQL

Last Updated : 11 Jun, 2026

Duplicate records can be found in SQL by using the GROUP BY and HAVING clauses along with the COUNT() function. These tools help group similar values and check how many times they appear in a table. They help in:

- Grouping records that have the same values.
- Counting how many times each value appears using COUNT().
- Filtering groups using HAVING COUNT(*) > 1.
- Identifying duplicate rows for data cleaning and analysis.

Syntax:

```
SELECT column1, column2, ..., COUNT(*)
FROM table_name
GROUP BY column1, column2, ...
HAVING COUNT(*) > 1;
```

- **column1, column2:** The columns used to check for duplicate values.
- **COUNT(*):** Counts how many records exist in each group.

Example of Finding Duplicate Records in SQL

Let's create a table to find duplicate records in a table using SQL. We will use the GROUP BY and HAVING clauses with the COUNT() function to identify duplicates.

GeekID	GeekName	GeekRank	GeekSchool
101	Nix	2	Code Valley School
102	Rutz	4	Blue Chip School
103	Shrey	1	GCOEA School
104	Ankx	3	Round Robin Play School
105	Ridz	7	Dream School
106	Mayo	6	Silver Shining School
107	Bugs	5	Twinkle Star Convent
108	Maria	5	Code Valley School

1. Identify Duplicate Records

In the above table, we can see there are 2 records with the same geek rank of 5. GeekID 107 and GeekID 108 are having the same rank of 5. Now we need to find this duplication using SQL Query.

Query:

```
SELECT GeekRank, COUNT(*) AS DuplicateRanks
FROM Geeks
GROUP BY GeekRank
HAVING COUNT(*) > 1;
```

Output:

GeekRank	DuplicateRanks
5	2

- Same GeekRank rows are grouped.
- DuplicateRanks shows the count.
- GeekRank = 5 appears twice (GeekID 107, 108).

2. Deleting Duplicate Records

Once duplicates are identified, you can remove them using the DELETE statement. However, ensure we retain one copy of the duplicate record if needed to preserve important data. This approach helps maintain data integrity while removing redundancy.

Query:

```
DELETE FROM Geeks
WHERE GeekID NOT IN (
    SELECT * FROM (
        SELECT MIN(GeekID)
        FROM Geeks
        GROUP BY GeekRank
    ) AS temp
);
```

Output:

GeekID	GeekName	GeekRank	GeekSchool
101	Nix	2	Code Valley School
102	Rutz	4	Blue Chip School
103	Shrey	1	GCOEA School
104	Ankx	3	Round Robin Play School
105	Ridz	7	Dream School
106	Mayo	6	Silver Shining School
107	Bugs	5	Twinkle Star Convent

- Retains only one record per GeekRank (based on the minimum GeekID) and deletes the rest.
- Use only when GeekRank is treated as a unique identifier for duplicates.

Handling Duplicate Values

Visit Course

Suggested Quiz 5 Questions

Which SQL clause is used to filter grouped records when identifying duplicates?

A WHERE

B ORDER BY

C DISTINCT

D HAVING

Login to View Explanation 1/5 < Previous Next >

Comment GeeksforGeeks 11

Explore

Basics

Queries & Operations

Joins & Functions

Data Constraints & Aggregate Functions

Advanced SQL Topics

Database Design & Security

Courses

GeeksforGeeks
Sanchhaya Education Private Limited

Corporate & Communications Address:
A-143, 6th Floor, Sovereign Corporate Tower, Sector- 136, Noida, Uttar Pradesh (201305)

Registered Address:
K 061, Tower K, Gulshan Vivante Apartment, Sector 137, Noida, Gautam Buddh Nagar, Uttar Pradesh, 201305

GET IT ON Google Play
Download on the App Store

Company
About Us
Legal
Privacy Policy
Contact Us
Advertise with us
GFG Corporate Solution
Training Program

Explore
POTD
Job-A-Thon
Blogs
Nation
Skill Up

Tutorials
Programming Languages
DSA
Web Technology
AI, ML & Data Science
DevOps
CS Core Subjects
Interview Preparation
Software and Tools

Courses
ML and Data Science
DSA and Placements
Web Development
Programming Languages
DevOps & Cloud
GATE
Trending Technologies

Videos
DSA
Python
Java
C++
Web Development
Data Science
CS Subjects

Preparation Corner
Interview Corner
Aptitude
Puzzles
GfG 160
System Design

@GeeksforGeeks, Sanchhaya Education Private Limited, All rights reserved